

Outdoor *Delaware*

FALL 2018

In this issue:

Off-the-Beaten-Track in Western
Sussex County – *page 4*

Ditch the Hitchhikers – *page 9*

The Birds of Bombay Hook – *page 16*
and more!





LARRY KNOX

Frontlines



MANY OF US WONDER how the summer has passed so quickly. Despite the change of seasons, we still have time to go outdoors and explore all of the options available to us before the weather turns colder. That is what this issue of *Outdoor Delaware* offers – special places and activities that remain open to us now and into the fall.

For example, there is still time to take a leisurely stroll through the Bombay Hook National Wildlife Refuge to spot some of the birdlife. This edition's lovely photo essay, by award-winning photographer Doug Norton, will show you some of the unusual birds to look for when you are out.

From the birds of Bombay Hook to a birds of prey, this issue also offers a fascinating look at a master falconer – and what it takes to be an apprentice in this ancient and challenging sport.

In the summer edition, we provided 50 ways to escape the

ordinary – and we promised that we would continue this special feature. Our travel correspondent, Theresa Gawlas Medoff, has provided five must-see and off-the-beaten-track places to visit and things to do in western Sussex County.

While the fall weather beckons us to continue to explore the trails in DNREC's beautiful state parks, we include a cautionary tale about how to avoid spreading invasive plant species by treading carefully through them.

The weather may start to cool off as the fall months approach, but as everyone knows, there are also some days when temperatures soar. Due to climate change, this trend is becoming more frequent. That means it is getting hotter and bugger, so we offer ways to watch out for your health and avoid our nemeses – mosquitos and ticks.

These stories and much more await your reading pleasure in this edition. Enjoy the magazine, and the days ahead, and make the time to get outside and experience this fall season. **OD**

SHAWN M. GARVIN, SECRETARY



Outdoor Delaware

2018 | VOLUME 27 | ISSUE 3

STATE OF DELAWARE

GOVERNOR

John Carney

DNREC SECRETARY

Shawn M. Garvin

CHIEF, PUBLIC AFFAIRS

Carol Anders Riggs

MAGAZINE STAFF

EDITOR

Beth Shockley

DESIGN

Larry Knox

CIRCULATION

Matthew Cardona

PRINTING

McClafferty Printing Company
Wilmington, Delaware



Find Us on Facebook
Search *Outdoor Delaware*

Outdoor Delaware magazine is published quarterly by the Department of Natural Resources and Environmental Control, 89 Kings Highway, Dover, DE 19901. Subscriptions are \$8 for one year. Due to nonprofit status, refunds cannot be made. Subscribers may transfer unexpired subscriptions to another party of their choice. *Outdoor Delaware* welcomes photographs and articles but will not be responsible for loss or damage; return postage must be provided. Permission granted to reprint with proper credit. Telephone: Editor's Office (302) 739-9902; subscription information, (302) 739-9902. The Department of Natural Resources and Environmental Control is committed to affirmative action, equal opportunity, and the diversity of its workplace.

POSTMASTER: Send address changes to *Outdoor Delaware*, DNREC, 89 Kings Highway, Dover, DE 19901. Second class postage is paid at Dover, DE with additional mailing offices.

(ISSN 0045-9852) Document number: 40-01-05/07/18/1 USPS #151-880.



Outdoor Delaware is the flagship, award-winning conservation magazine of the Delaware Department of Natural Resources and Environmental Control.

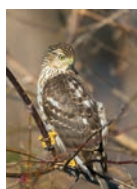


Printed on recycled paper

On the Cover:

Juvenile Cooper's hawk.
Copyright © 2018
by Doug Norton

"Hawks are a lot easier to spot in autumn. With no leaves to hide behind, their teardrop shape gives them away. I caught this one out in the open while looking for small birds in the trees."



28

Contents

4 Off-the-Beaten-Track in Western Sussex County

By Theresa Gawlas Medoff

The Top-Five hot spots you don't want to miss!

9 Ditch the Hitchhikers By Michelle Knapp

How to reduce the spread of invasive plant species on trails in our state parks.

12 Climate Change and Your Health

By Kerri Yandrich

It's getting hotter and bugger – here's what to do.

16 The Birds of Bombay Hook By Doug Norton

This stunning photo essay displays unusual species of birds you might find.

20 "An Extreme Stirrer Up of Passions" By Teddy Moritz

The fascinating world of the ancient sport – and art – of falconry.

24 25 Years... But Who's Counting?

The Delaware National Estuarine Research Reserve turns 25 this year – and there are many milestones to celebrate.

28 And the Winners Are... By Phil Miller

DNREC's Division of Watershed Stewardship held its first photo contest at the state fair this year – here are the first-place winners.

29 Econotes



4



16



12



20

Off-the-Beaten-Track in Western Sussex County The Top 5 Hot Spots

BY THERESA GAWLAS MEDOFF

DELAWARE'S WESTERN SUSSEX COUNTY boasts a number of outstanding natural attractions that draw nature lovers for birding and wildlife viewing, boating, hiking, horse-back riding, hunting, fishing, and just relaxing outdoors with family and friends. Here are our top five recommendations for where to go and what to do when you're in the area.

1. Trap Pond State Park

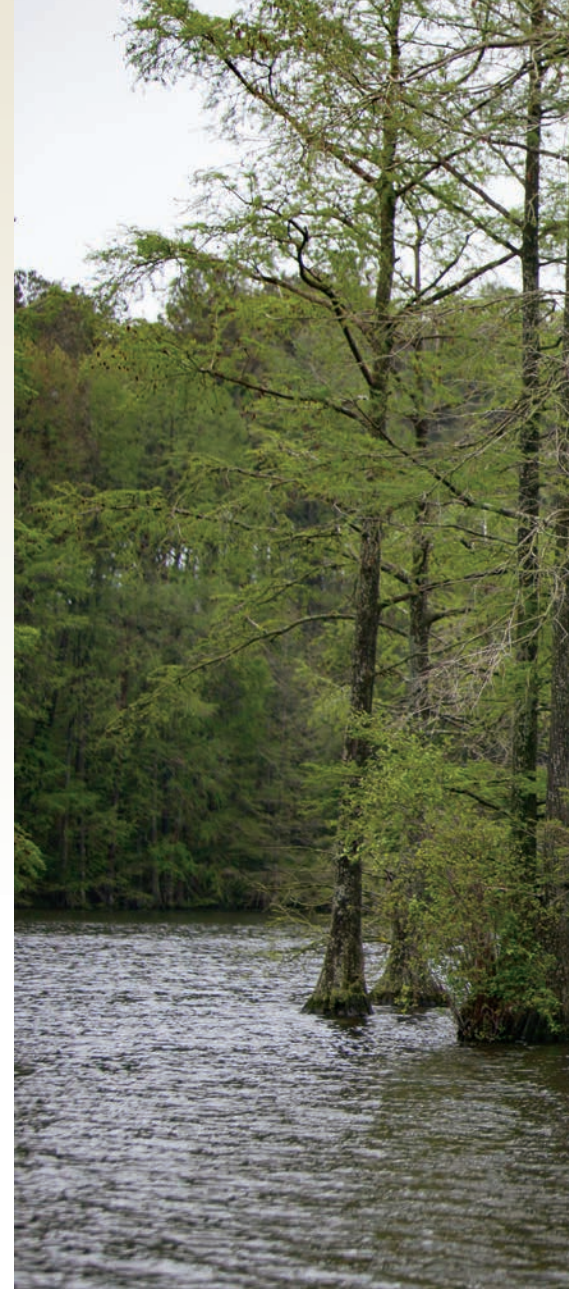
Out on the open expanse of 95-acre Trap Pond, the late afternoon sun was shining, but a thick canopy of trees blocked much of the daylight from reaching the narrow channel of water that makes up the Terapin Branch Water Trail. Here, amidst the deep thrumming notes of the bullfrogs mixed with the higher pitched tones of tree frogs and crickets, a solitary kayaker navigated the waters around the knobby knees of the abundant bald cypress trees. The setting seemed perfect for a Sherlock Holmes mystery.

Mysterious, but also beautiful – and, as it turns out, record-setting. The bald cypress in Laurel qualify as the northernmost stand of a tree species most commonly found in southern swamps. An unusual characteristic of the trees is that when growing in watery habitats, they develop conical growths, called knees, on their roots – perhaps an adaptation for getting oxygen.

With such distinctive beauty, it's only natural that topping the list of things to do at Trap Pond is getting out onto the water. That's easy to do, as rowboats, kayaks and



Kayaking on Trap Pond.



canoes are available for rent throughout the summer season. Park naturalists also lead guided tours on pontoon boats from Memorial Day through Labor Day.

Hikers can see a great concentration of bald cypress on the easy 0.6-mile Cypress Point Trail that wends through forest and along the pond's edge. The 4.6-mile Bob Trail is a favorite of birders who come to see the prothonotary warblers that nest in the cypress trees in spring, as well as kingfishers and great blue herons and other species that favor the wetland habitat.

With so many natural attractions at Trap Pond, it's not surprising that the state park has long been a favorite of campers, who can choose from primitive campsites, rustic cabins and yurts, or those with water and electric hookup.

APRIL ABEL



Baldcypress at Trap Pond.

APRIL ABEL



Birdwatchers at Nanticoke Wildlife Area.



Prothonotary warbler.

FREDE JACOBSEN

JIM RAPP

2. Nanticoke Wildlife Area

The Nanticoke Wildlife Area, which comprises three tracts of land totaling some 4,500 acres along the Nanticoke River and Broad Creek near Seaford and Bethel,

draws birders and other wildlife watchers, hunters, hikers and equestrians who ride their horses on designated trails.

The birds here are most profuse and of greatest variety from March through October, but there's interest even in winter, says Jim Rapp, past president of the Nanticoke Watershed Alliance and organizer for the past 23 years of Delmarva Birding Weekends.



FRODE JACOBSEN

Tundra swan.

“For a birder, Western Sussex in the spring is just, ‘Oh, my gosh!’” Rapp says. “The birds come here for the abundant larvae of moths, butterflies and other insects, which are the perfect food for baby birds.”

The feast brings some 25 species of birds passing through as they make their way from the warm tropics where they overwintered, on to cooler northern woods for the summer. They include prothonotary warblers, the male of which is bright gold; flycatchers; multiple types of tanagers, including the summer tanager and the scarlet tanager with its bright red body and black wings; barred owls, ruby-throated hummingbirds; the great crested flycatcher; white-eyed vireo; and wood thrush, known for its beautiful song.

Winter features woodpeckers and the

migratory yellow-bellied sapsucker, which feeds from maples and other sap-heavy trees. More than a dozen species of waterfowl can routinely be found – a real draw for hunters – including green-winged-teal, mallard and black duck. And a truly breathtaking sight is the tens of thousands of snow geese and tundra swans that alight in fields, giving them the appearance of being covered in snow.

One of the most satisfying sights of the winter season are the bald eagles. “Thirty-five years ago, you would have been lucky to see a bald eagle, now you can see dozens in a day,” Rapp says. Both bald eagles and osprey have made a comeback, he notes, thanks to the state and federal agencies and nonprofits that have worked to save the once threatened species.

Please note: Parts of state wildlife areas are open to hunting, so check DNREC’s hunting guide for season dates and locations, and consider wearing hunter orange if you plan to venture into these areas during hunting season. Also: A Conservation Access Pass is required for motor vehicles in most areas where indicated by signs. For more information, call 302-739-9912 on weekdays.

3. Midlands, Marshy Hope and Old Furnace Wildlife Areas

The Nanticoke Wildlife Area was established in 1967. Much newer are the other three wildlife areas in Western Sussex, all of which came online in 2000 or later. At more than 4,000 acres, Midlands Wildlife Area is the largest of the three; it’s also the area where DNREC has been most active, managing the former commercial loblolly pine plantation to return it to a more natural mix of pine and hardwood forest mixed with bushy areas, according to Rob Gano, regional fish and wildlife manager for DNREC’s Division of Fish & Wildlife.

Within the past two years, DNREC has also created about 12 acres of wetlands that are already attracting wildfowl and wading birds. Among the latest projects was planting clover in late April to attract deer and wild turkey.

“Restoring a more natural balance to the wildlife area makes it more useful to a wide variety of animals,” Gano says.

Recent work at Marshy Hope Wildlife Area restored natural flooding to the forested floodplain by breeching the spoil banks left over from stream channelization done along Marshy Hope Creek many years ago. The breeches allow flood waters to deposit sediments and excessive nu-

trients into the forest floodplain, thereby cleaning the stream of pollutants. That project was completed in February in conjunction with the Nature Conservancy and the U.S. Fish and Wildlife Service.

“Eventually, we will try to diversify the forest at Marshy Hope as well, through timber harvest and thinning, but right now the pines are too young,” Gano says.

Old Furnace Wildlife Area is similar in environment to the other two areas. All three can be used for wildlife watching as well as hunting. White-tailed deer are abundant, as they are throughout the state, but hunters also target wild turkey and small game.

Please note: Parts of this state wildlife area are open to hunting so check DNREC’s hunting guide for season dates and locations, and consider wearing hunter orange if you plan to venture into these areas during hunting season. Also, a Conservation Access Pass for motor vehicles is required in these wildlife areas where indicated by signs.

4. The Nanticoke River

The largest tributary to the Chesapeake Bay in lower Delmarva, and among the most pristine, the 64-mile-long Nanticoke River is a source of beauty and a destination for outdoor activities from its rise in Kent County, on through Sussex County and then through Maryland’s Eastern

How to get a Conservation Access Pass

A Conservation Access Pass is required for any registered motor vehicle that’s used to access state wildlife areas for hunting, birdwatching, photography or other recreational activities. These can be purchased online at DNREC’s Division of Fish & Wildlife’s website: <http://www.dnrec.delaware.gov/fw>, from an authorized license agent, or call 302-739-9918 for more information. You can get one free annual vehicle pass with the purchase of a hunting license. That vehicle pass will be valid to access state wildlife areas for both hunting and non-hunting activities.



Shore to Tangier Sound. It was a river navigated by Captain John Smith as he explored the region and by the Nanticoke Indians before him. Today, it’s a place for canoeing and kayaking, birdwatching and fishing.

“It’s one of the prettiest rivers in the Mid-Atlantic,” says Stan Horne, who joins the Chester County, Pa.-based Bass Masters several times a year in tournaments on the Nanticoke. “It also has one of the fastest tidal movements on the Eastern Shore, which makes it more challenging to fish. But it’s a fairly safe river, too, with not a lot of boulders or obstructions.”

So popular is the Nanticoke River System with anglers, that it ranks as the most heavily-fished river or stream in Delaware,

according to statewide surveys of anglers. The river system has also hosted the most popular largemouth bass fishing tournament for the past few decades.

Commercial barges continue to use the river below Seaford, but especially on weekends and holidays, you’ll see pleasure boats, some with water skiers trailing behind, as well as people who are kayaking, canoeing or jet skiing. Launches and boat ramps are available in Seaford, the Nanticoke River Marina in Blades, Phillips Landing, and Roger C. Fisher Laurel River Park.

Phillips Landing is an especially popular spot, with picnic tables, public toilets, three boat launches, and a floating pier for water access. The boat launch at Seaford is

Boaters on the Nanticoke River.





BRIAN ROGERS

Catching a fish in the ponds of western Sussex County.

likewise popular, and proves even more so in the summer, thanks to the completion this spring of major renovations by DNREC's Division of Fish & Wildlife.

5. The Ponds of Western Sussex

When Brian Rogers and the other members of the Stump Jumpers club set out to fish in Sussex County, they frequently head to one of the numerous DNREC-managed ponds in Seaford and Laurel: Trap, Chipman, Records, Horseys and others. "The ponds are easily accessible and local to where a lot of the anglers live. And they're good fishing. Guys really want to go there because they're catching big fish," Rogers says.

Most of the Stump Jumpers – which has more than 100 members – live in Kent and Sussex counties. They go all over the region for catch-and-release bass fishing. They, and other anglers, work closely with DNREC, particularly with Edna Stetzar, fisheries biologist for DNREC's Division of Fish & Wildlife.

"Edna is always really helpful. She keeps good track of the breeding class of fish, and she knows if a pond is on the rise or decline," Rogers says. "One way she does that is by getting samples of the size and numbers of fish caught by tournament anglers, which helps her to assess a pond's health."

The number and type of fish in each pond is cyclical, depending on factors such



BRIAN ROGERS

Largemouth bass prize in the ponds of western Sussex County.

as weather, availability of food sources and others. Records Pond, for example, is still rebounding from Hurricane Sandy, which required lowering water levels to avoid dam failure. When appropriate, DNREC takes steps to improve pond conditions. For example, Hearn's Pond dam was recently reconstructed and had a new boat ramp and courtesy dock installed after the pond had been periodically closed to anglers in past years, when the dam washed out due to extreme rain storms.

With such an abundance of outstanding natural sites, it's no wonder that nature lovers find Western Sussex County so entertaining and enriching. So visit one or all of these off-the-beaten-track spots this

fall – all with the benefit of the changing season. **DD**

AS A TRAVEL WRITER, THERESA GAWLAS MEDOFF VISITS DESTINATIONS ALL OVER THE WORLD, BUT SOME OF HER FAVORITE PLACES ARE RIGHT HERE IN HER HOME STATE OF DELAWARE.

Ditch the Hitchhikers

How to reduce the spread of invasive plant species on trails



JOANNA WILSON

SUNNY SKIES, a light refreshing breeze, and leaves crunching beneath the feet beckon trail lovers to explore on foot, bike or horseback. As they gear-up with their best hiking boots or worn-in sneakers, they lace up, lock their vehicles and set forth on their favorite trailhead, or even decide to explore a new path.

If you're a trail lover, after a full day of discovering old and new sights, you head home and leave your well-worn shoes at your front door. While well-traveled sneakers or muddy boots are a sign of a successful trip, the last thing you want to do is track traces of mud, sand, pebbles, or even seeds across your floors.

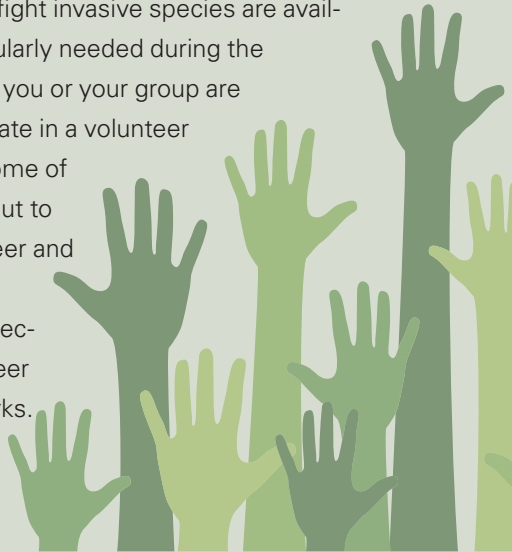
As many of us are taught to leave dirty shoes outside before entering our homes, few of us are instructed to wear clean footwear when visiting new nature trails. Most of us use the same footwear on many trails, both local and afar, seldom cleaning footwear between trail visits. This poses a distinct threat to the trails and other natural areas that we traverse and love.

To help alleviate this risk, it is recommended that you clean footwear between trails, especially if you have visited recreational trails in other states or internationally. This can be done by washing footwear before and after exploring a new trail. Or, keep a boot brush in your vehicle or trail pack to sweep away hitchhiker spe-

cies from your shoes and boots before and after heading out to the trail. A boot brush can be purchased at your local shoe, hardware or even grocery store. Just look for a hard-bristled brush that can be used to scrub a floor or to clean dishes.

Most trail users are simply unaware that soiled footwear can help spread hitchhiking invasive plant species. As nature lovers, we know that parks and natural places are not just places to visit, they are considered home. We wouldn't want to drag dirt, mud, or seeds in our own homes, so why would we do this in our "homes away from home," like our state parks?

VOLUNTEER OPPORTUNITIES to fight invasive species are available all year, but are particularly needed during the early spring and fall seasons. If you or your group are interested in helping to participate in a volunteer event focusing on managing some of these invasive species, reach out to Glen Stubbolo, Chief of Volunteer and Community Services for DNREC's Division of Parks & Recreation or check out the volunteer page at <http://www.destateparks.com/volunteers/>.



The hitchhikers

With 26,000 acres of land and more than 150 miles of recreational trails spread across 16 state parks, Delaware's state park users carry a level of pride in the beauty

found in the parks. That pride translates to nearly five million visitors each year, averaging 10 million pairs of footwear that find their way into the parks. We can only imagine the number of seeds and other in-

vasive hitchhikers securing free passage on boots and sneakers. These organisms are generally referred to as hitchhiking species.

Many of the hitchhiking species rapidly spreading in our parks have developed highly advanced adherence methods. One destructive invasive species commonly found on numerous trails in Delaware is garlic mustard. Just one plant can produce thousands of seeds, allowing increased opportunities to spread.

Other common invasive plant species found on the Delaware recreational trails, such as multiflora rose, mile-a-minute, Japanese stiltgrass, autumn olive, and wineberry, also have developed rapid methods of seed distribution, which often leads to rapid vegetation growth that disrupts the natural environment. Hitchhiker species also tend to spread uncontrolled due to few natural predators, often out-competing native vegetation and altering the landscape, thus decreasing the overall biodiversity of a region.



DNREC Division of Parks & Recreation volunteers help clear invasive plant species.

To ensure that the parks are healthy, invasive species are managed by DNREC's Division of Parks & Recreation's field staff under the Invasive Species Management Plan, in which parks field staff oversees the eradication of invasive plant populations. In addition, seasonal volunteer events are organized to help hand pull, cut back, spray, and remove established populations.

Getting rid of the hitchhikers

The best way to support state parks in the effort to stop hitchhiking plant species is to help stop the further introduction and spread of non-native plant species. It is far more labor intensive and costly for the parks staff to manage an existing population of hitchhiker species than to prevent new ones from taking root. We can all help maintain the natural beauty of the parks by helping to get rid of these hitchhiking species.

So remember to brush your boots to help dislodge hitchhikers from the treads. Also, consider taking a photo of yourself



DNREC DIV. OF PARKS & REC



BILL MCAVOY

Garlic mustard is an invasive plant species.

using a boot brush and posting it on social media to assist in getting the message out.

Unintentional human dispersal of hitchhiking plant species is preventable if a few simple precautions are taken: check, brush, and ditch those unwanted hitchhikers. **OD**

MICHELLE KNAPP IS A GRADUATE STUDENT IN THE GLOBAL FIELD PROGRAM AT MIAMI UNIVERSITY WHO WRITES ABOUT INVASIVE SPECIES MANAGEMENT AND ENVIRONMENTAL ISSUES. SHE IS PASSIONATE FOR THE ENVIRONMENT, WORKING FULL TIME AT TRI-STATE BIRD RESCUE & RESEARCH, INC., TO ENJOYING THE OUTDOORS AS MUCH AS POSSIBLE.

Climate Change and Your Health

It's Getting Hotter and Buggier

BY KERRI YANDRICH

Temperatures are rising

IMAGINE THIS: a scorching 95-degree day, and Captain Brian Pollock and his students enrolled in the DNREC Division of Fish & Wildlife's Natural Resources Police Youth Academy have a full day planned, including fishing, hunting and archery. This would be a little bit more enjoyable on a 70-degree day, but today, they are baking out in the hot sun and being swarmed by mosquitoes and ticks. This is nothing new; days like this are expected in the summer. But this is where we need to acknowledge climate change. It contributes to the increase of average

global and regional temperatures. It also contributes to more days of extreme heat and more frequent and intense heat waves.

Rising temperatures can have serious health impacts, including the risk of heat-related illnesses and vector-borne illnesses from mosquitoes and ticks. Everyone is vulnerable to increasing temperatures, but some populations are more at risk than others. Vulnerability is characterized by three factors: exposure, sensitivity, and adaptive capacity.

When it comes to heat, exposure is the main culprit of vulnerability. Exposure describes a person's direct contact with the

DNREC's Division of Fish & Wildlife staff wear netting to protect their faces and necks from mosquitoes.



Students of the DNREC Natural Resources Police Youth Academy protect themselves from mosquitoes and ticks by applying bug spray.

stressors of climate change. For example, you are exposed if you are out on the marsh on the hottest day of the year.

Sensitivity is the degree to which someone is affected by climate change effects. For example, as you age it becomes more difficult for your body to adjust to temperature changes, thus making the elderly more vulnerable to extreme heat.

Adaptive capacity describes your ability to cope with the hazards of climate change. For example, if you're working outdoors without adequate water, rest breaks or access to shade, you're likely to be more vulnerable to heat illness.

DNREC DIV. OF F&W



DNREC DIV. OF F&W

Extreme heat will make you ill

Hunters, construction workers and athletes – what do they all have in common? They are exposed to heat. Excessive exposure to heat can lead to heat-related illness. When you're physically active in the heat, you are even more vulnerable to heat-related illness. Heat can take a toll, especially when you're acclimating to summer temperatures. But exposure doesn't necessarily have to be outdoors. On hot days, the temperature inside a car is hotter than the outdoor air, and if you are inside a hot car for too long, heat-related illness is a possible consequence.

So what does heat-related illness look like? It can take many forms. Examples of heat-related illnesses include heat stroke, heat exhaustion, heat cramps and heat rash. In order to take care of yourself and others, it's important to recognize the symptoms of heat-related illness. These include high body temperature, dizziness and muscle cramps. It is critical to respond in a prompt and efficient manner and take actions such as moving to a cool place, using a cool cloth to lower the body's temperature and calling 911 in emergency situations.

Also, it is important to take preventive action such as staying hydrated, taking fre-

quent work breaks in the shade and wearing light-colored clothing.

Christina Whiteman is an environmental scientist at DNREC's St. Jones Reserve and has to go out in the field in the summer to perform work involving wetland monitoring. Recognizing that heat is a health hazard, she and her colleagues will start their field work earlier in the day and spend less time out on the marsh.

On the vector to more vectors

The word vector has been thrown around a few times, so let's define it. According to the CDC, a vector is a living creature that



Researchers use a slide hammer to determine the soil-bearing capacity of the marsh, and to record vegetation present within a one-meter quadrant for DNERR's long-term monitoring program.

transmits an infectious agent to humans. A warming climate is good news for mosquitoes but not for humans. Earlier springs and later autumns mean that mosquito season is getting longer, and this will continue.

Bill Meredith, DNREC's Mosquito Control section administrator, says that the core mosquito season in Delaware currently runs from late-April into mid-October, just short of six months. But if our future climate becomes more like South Carolina or Georgia, then our core season could run from early April into mid-November, about seven-and-a-half months. Not only are mosquito bites annoying, but the diseases they can carry can be potentially life-threatening, particularly for vulnerable individuals.

Mosquito-borne illnesses of primary concern for Delaware include West Nile virus and eastern equine encephalitis. Hotter temperatures, along with higher



Mosquito Control inspector looks for larval mosquitoes in a saltmarsh.

DNREC DIV. OF F&W

rainfall and humidity, also create ideal conditions for new mosquito species and their diseases. For example, Zika virus, chikungunya, or dengue fever, now found in tropical or sub-tropical areas including south Florida and south Texas, could become a reality for residents of the First State in the future.

Like mosquitoes, ticks thrive in warmer climates. This can mean more species of ticks, higher population counts, more bites and more disease transmissions. A warming climate also could lead to a greater white-footed mouse population, which is a primary host for Lyme disease. While Lyme disease is the biggest threat in Delaware, other potential illnesses include Rocky Mountain spotted fever, ehrlichiosis, babesiosis, Powassan virus and tick paralysis.

Anyone who works or plays in outdoor recreation areas such as wetlands or heavily forested areas is vulnerable to contracting a vector-borne illness. Knowing what the future holds for these vectors, it is in our best interest to protect ourselves from the diseases they carry.


Captain Brian Pollock and the DNREC Fish & Wildlife Natural Resources Police Youth Academy staff take preventive action to protect their kids during their week-long training. They explain what various ticks look like and where they can be found, limit the amount of time spent in areas with high tick concentrations, use bug spray and tuck socks over pant bottoms.

Health impacts aren't subsiding

It's now fall, and the temperatures are starting to cool off. But that doesn't mean the risk of heat-related illnesses are gone for the rest of the year. As a result of climate change, it's no longer rare to have a sweltering hot day or to be bitten by mosquitoes in October. And with temperatures continuing to rise into the future, the health impacts of heat will only get worse during more days of the year. In order to keep our families, friends, co-workers and ourselves safe, it is imperative that we are aware of the effects of climate change, of the warning signs of heat-related and vector-borne illnesses, and of preventive measures that can be taken. **OD**

HEAT-RELATED ILLNESSES

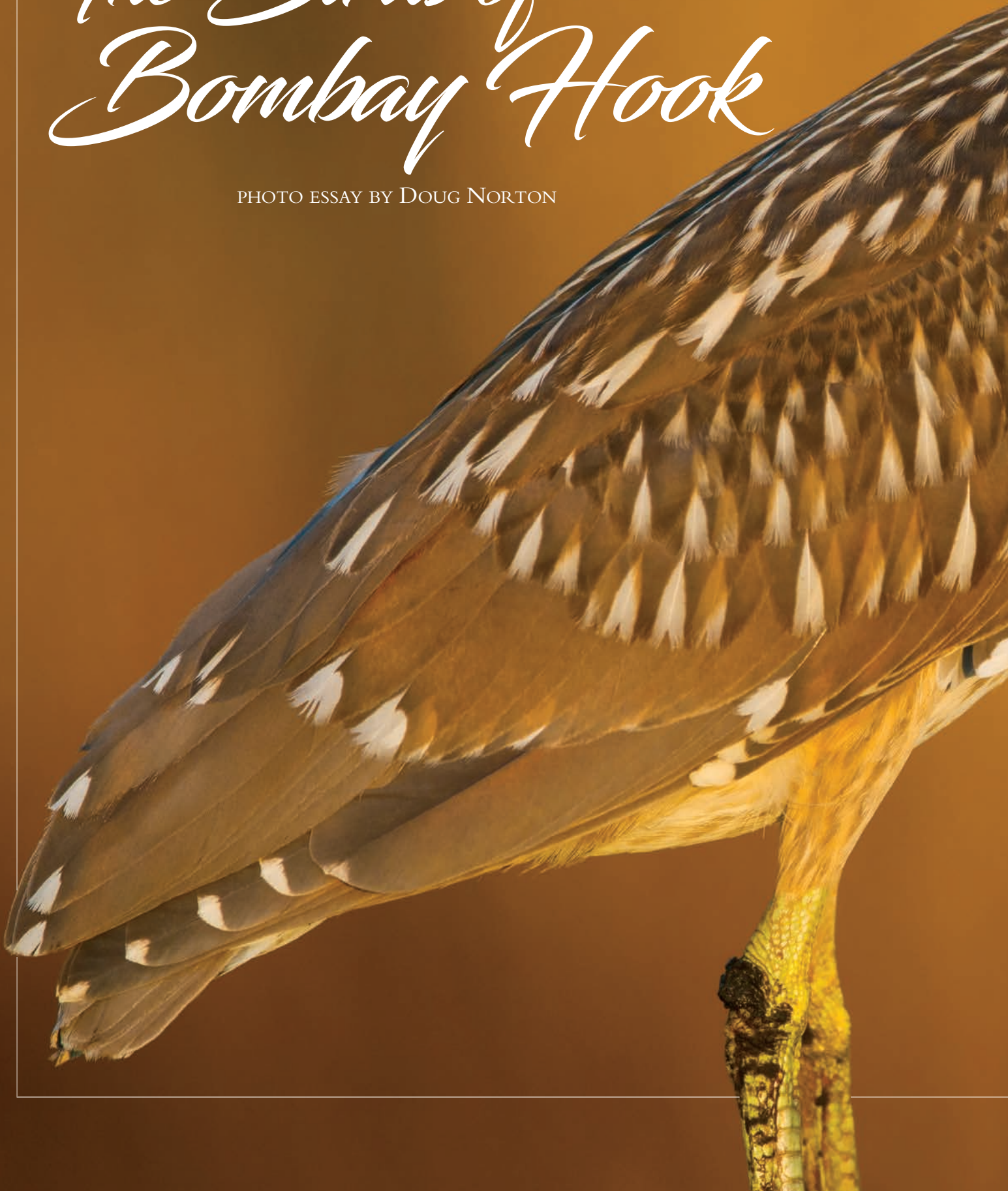
WHAT TO LOOK FOR	WHAT TO DO
<h3>HEAT STROKE</h3> <ul style="list-style-type: none"> High body temperature (103°F or higher) Hot, red, dry, or damp skin Fast, strong pulse Headache Dizziness Nausea Confusion Losing consciousness (passing out) <ul style="list-style-type: none"> Call 911 right away-heat stroke is a medical emergency Move the person to a cooler place Help lower the person's temperature with cool cloths or a cool bath Do not give the person anything to drink 	
<h3>HEAT EXHAUSTION</h3> <ul style="list-style-type: none"> Heavy sweating Cold, pale, and clammy skin Fast, weak pulse Nausea or vomiting Muscle cramps Tiredness or weakness Dizziness Headache Fainting (passing out) <ul style="list-style-type: none"> Move to a cool place Loosen your clothes Put cool, wet cloths on your body or take a cool bath Sip water <p>Get medical help right away if:</p> <ul style="list-style-type: none"> You are throwing up Your symptoms get worse Your symptoms last longer than 1 hour 	
<h3>HEAT CRAMPS</h3> <ul style="list-style-type: none"> Heavy sweating during intense exercise Muscle pain or spasms <ul style="list-style-type: none"> Stop physical activity and move to a cool place Drink water or a sports drink Wait for cramps to go away before you do any more physical activity <p>Get medical help right away if:</p> <ul style="list-style-type: none"> Cramps last longer than 1 hour You're on a low-sodium diet You have heart problems 	
<h3>SUNBURN</h3> <ul style="list-style-type: none"> Painful, red, and warm skin Blisters on the skin <ul style="list-style-type: none"> Stay out of the sun until your sunburn heals Put cool cloths on sunburned areas or take a cool bath Put moisturizing lotion on sunburned areas Do not break blisters 	
<h3>HEAT RASH</h3> <ul style="list-style-type: none"> Red clusters of small blisters that look like pimples on the skin (usually on the neck, chest, groin, or in elbow creases) <ul style="list-style-type: none"> Stay in a cool, dry place Keep the rash dry Use powder (like baby powder) to soothe the rash 	

KERRI YANDRICH IS THE CLIMATE CHANGE PROJECT SPECIALIST FOR DNREC'S DIVISION OF CLIMATE, COASTAL & ENERGY.

The Birds of Bombay Hook

PHOTO ESSAY BY DOUG NORTON





Black-crowned night heron (immature) –
*These herons are plentiful, but often difficult
to photograph out in the open.*

Bombay Hook National Wildlife Refuge, located east of Smyrna, has always been a special place to me. I have been photographing wildlife there for more than 25 years, and I have yet to capture on camera all that the refuge has to offer. Each season brings a new variety of birds, and it is always exciting to see the familiar species as well as some new ones. This past February was the first time I saw short-eared owls in significant numbers and within easy reach of the camera. Even the more common species aren't always easy to capture. Learning their behaviors and the optimum time of the year to find them is often a difficult process.

The orchard oriole was one of the birds I had yet to photograph. In May and June of last year, I finally got some images of not only the adults, but of the juveniles as well. My favorite bird of all, however, is the indigo bunting. While they are all over the refuge, they are so hard to photograph because of their speed – and they don't sit still for long. I am always trying to get the best images of them that I can.

Within Bombay Hook's borders, many habitats can be found, such as saltmarshes, cooperative farming cropland, wooded areas and freshwater impoundments that contribute to the number of different species in one place. It is an amazing place to photograph wildlife, and I am lucky to have it at my disposal – and so close to home.

Orchard oriole – *Immature male
orchard orioles look similar to
females except for black around
their bill and throat.*





Green heron – A small heron that is usually found in the swampy marsh at Finis Pool, hunting for tadpoles and small fish.



Yellow warbler – Yellow warblers are tough to catch on camera because they forage restlessly, hopping along small branches hunting for caterpillars and other insects.



Osprey – One of my favorite birds of prey on the refuge, osprey can be seen fishing in the waters before sunrise.



Short-eared owl – *One of the most elusive birds at Bombay Hook, it has taken me years to get a shot this close.*

AN EXTREME STIRRER UP OF PASSIONS

BY TEDDY MORITZ

THE TITLE OF THIS STORY is an excerpt from a quote from England's King James the First. He was referring to the sport of falconry, which is the art of using a bird of prey to catch game. Birds of prey include falcons, hawks and eagles. Falconry is a very old sport, long preceding the use of firearms. It is thought to have originated in the Orient – finding its way to the Mideast and on to Europe via the Crusaders. The art of falconry is recognized the world over as a heritage sport due to its antiquity.

Since the 1940s, falconry has been practiced in the United States and is a highly regulated sport. Birds of prey are dually protected under federal and state fish and wildlife laws. Birds of prey cannot

be used for falconry unless the applicant has a series of federal and state permits and a state hunting license. This makes being a falconer or becoming one a seemingly arduous task.



Master falconer Teddy Moritz and her Harris's hawk, Sweet Baby Ray.

DOUG NORTON





Harris's hawk.

The falconer's apprentice

There are multiple levels of mastering the art of falconry. They start with the apprentice and climax at the master level. A person interested in becoming a falconer must first find a mentor, called a sponsor, to guide him or her through the licensing process and through the proper care and handling of a bird of prey.

The sponsor provides education regarding many aspects of falconry beginning with trapping, feeding and handling the bird of prey. The apprentice falconer may trap a bird during certain times of the year, usually in the fall and winter. Every state determines its own season for taking a bird of prey out of the wild. During the apprenticeship, the sponsor helps their protégé acquire a hawk of the correct age and species. This includes building specific traps and spending time on the road looking for a proper bird.

Once a suitable bird is trapped, the apprentice has to put leg straps, called jesses,

Once the hawk is in captivity, the sponsor guides the apprentice through the steps of how to acquire the required gear and facilities for housing the bird, and overseeing all aspects of caring for a bird of prey.

The apprentice must make or buy his or her own gear for the hawk, including a room, called a mews, designed especially for housing a raptor.

The apprentice must have a reliable



General falconer Zach Bohn and his red-tailed hawk, Bella.



Meat tidbit for hawk's reward.

DOUG NORTON

on the bird and check its general health. The hawk most often approved for apprentice falconers is the red-tailed hawk, a common species across most of America. These big hawks are a good bird for an apprentice to learn from, as they are sturdy and can be used to hunt a variety of game. Their expertise at chasing and catching squirrels has kept them popular with beginners. They are good rabbit hawks as well. Red-tailed hawks have very thick toes and very strong feet so they can grip and hold onto a squirrel. One benefit to the falconer in using a red-tailed hawk is that at the end of the hunting season, the hawk may be released back into the wild.



Bella on her lure.

source of proper food for the hawk. Raptors don't survive on canned dog food or deli meat but must have fresh raw meat. A veterinarian should be available to treat any maladies the bird may manifest. The apprentice has to tame the bird by handling it carefully and extensively for many days – and sometimes weeks – depending on the nature of the bird. In other words, becoming a falconer takes a lot of time and commitment.

The new bird must be handled often and correctly. It cannot be left alone for days on end and then be expected to be tame. The hawk does not bond with the falconer like a dog, but can figure out that the falconer is a source of food. This bond of handling and providing food tames the hawk to the extent that it will reliably return to the falconer and also take part in hunting with the falconer. The hawk wants to fill its belly; it doesn't hunt for the falconer but for itself. The falconer is allowed by the hawk's learned-tameness that the falconer can approach when it has caught game.

The art of falconry

After an intensive apprenticeship of at least two years, the sponsor may allow the apprentice to move up to General Falconer. However, if the sponsor feels the apprentice needs more experience, the apprenticeship may continue for another year, and the apprentice must demonstrate the ability to tame the hawk, train, and fly it on game. The falcon cannot just be housed and handled; it must be taken hunting and allowed to fly free in pursuit of game.

To that end, falconers must follow the regulated game seasons like any hunter, so winter is the primary hawking season. Watching a hawk chase a squirrel up and down and around trees, through the branches and even onto the ground is very exciting. The hawk is doing what it would be doing in the wild anyway, but the falconer now gets to see this very intense pursuit. A squirrel is a tough quarry because its skin is very thick. It can also bite deeply with its rodent teeth.

Falconry is not a sport to be entered into without a serious commitment of time and energy. Proper care of the bird of prey is paramount, hence the federal and state regulations. It is a very rewarding partner-



Harris's hawk Sweet Baby Ray wears a specialized hood to keep her calm.

DOUG NORTON

ship when all goes well, but it can also be a sport that turns disastrous if the hawk is lost, hurt or disabled. So much time is spent getting the hawk to the stage where it accepts hunting with the falconer, that the loss of the hawk means starting all over with a new one, repeating anew the rigors of training and handling. There are only certain times of the year a new bird may be trapped, so a hawking season may come to an abrupt end if the hawk is lost or injured.

Studies have attested that taking a hawk out of the wild for use as a falconry bird does not affect the overall population of the species. A falconer will treat any disease or parasitic infestation the hawk may have. Through good care and a long season of hawking, the bird is kept healthy and strong, and will be part of the breeding season if released. A bird of prey used by a falconer is often a benefit to the hawk by returning it to the wild in better condition than when it was caught.

Many books on falconry are available and plenty of falconry sites can be found online. Anyone interested in the sport must realize it takes commitment for the good of the hawk. The rewards are great, but so is the effort needed. Contact DN-REC's Division of Fish & Wildlife for information on the sport in Delaware.

As quoted in the title of this article, falconry is indeed "an extreme stirrer up of passions." Watching the hawk hunt is very exciting. Trapping a new hawk leads to great anticipation of hunting the bird. Losing the bird is very hard to accept.

The author T.H. White wrote: "Falconry is not a hobby or an amusement; it is a rage. You eat it and drink it, sleep it and think it. You tremble to write of it, even in recollection." **OD**

TEDDY MORITZ IS A MASTER FALCONER WHO HAS BEEN FLYING HAWKS SINCE 1966. SHE FLIES A HARRIS'S HAWK NAMED SWEET BABY RAY. SHE HAS TRAINED THREE APPRENTICES WHO COMPLETED THE REQUIREMENTS, AND ARE ALL TODAY ACCOMPLISHED FALCONERS – A POINT OF PRIDE.



The Delaware National Estuarine Research Reserve

25 Years But Who's Counting?

THIS YEAR IS THE 25TH anniversary of the designation of the Delaware National Estuarine Research Reserve (DNERR). Here is a chance to get to know a little bit more about us by the numbers...



A view of DNERR's Blackbird Creek component in Townsend.



An aerial view of the DNERR's St. Jones Reserve component in Dover, and its connection to the Delaware Bay.

ERIC CROSSAN

1993 This is the year the Delaware National Estuarine Research Reserve was established.

2 The number of components of DNERR, which includes the St. Jones Reserve in Dover and the Blackbird Creek Reserve in Townsend. It is also the number of State Historical Markers found within the reserve and the number of science gardens installed to study phenology – to learn about cyclic and seasonal natural phenomena.

29 The number of National Estuarine Research Reserves in the country today. They can be found from Maine to Florida, Puerto Rico, along the Gulf and West Coasts, and including in Hawaii and Alaska. <http://nerres.noaa.gov>

6,206 The number of acres within DNERR's boundaries, including two square miles in the Delaware Bay.

22 The number of summer interns who have worked with DNERR in the last five years, getting hands on experience in research, environmental education, land management, communications and policy.

2,585 The number of decision-makers who attended Coastal Training Program workshops and events over the last five years, learning about topics ranging from sea level rise, wetlands and restoration, to living shorelines, invasive species and communicating science effectively.

1/4 of a mile is the length of the walkway over the marsh on the St Jones Reserve trail that leads over to the Ted Harvey Conservation Area.

1,413 The number of people who attended the Blackbird Creek Fall Festival in 2017. Mark your calendar to join us – always the third Saturday in October.

2004 The year the first Sediment Elevation Table (SET) was installed on DNERR to monitor marsh elevation over time.

9,873 The number of K-16 students the reserve's educators taught over the past five years.

18 The number of years there has been a native plant nursery at the St. Jones Reserve. Today in the nursery, we are growing native trees to be used in restoration projects.

9,811,200 Since 2013, the number of water quality data points collected by DNERR for the reserve's system-wide monitoring program.

420 The number of teachers who have participated in professional development workshops, such as "Teachers on the Estuary" or "Green Eggs and Sand."



DNERR

A DNERR environmental scientist collects elevation data from the marsh surrounding the St. Jones River.



A DNERR education coordinator leads students as they investigate Delaware Bay water samples.

1 The number of National Parks within the reserve's boundaries.

63 You can see all kinds of wildlife along the 5K trail at the Blackbird Creek Reserve or boardwalk trail at the St. Jones, with some help from our 63 bluebird, wood duck, bat, owl and kestrel boxes.

3,415 The number of native trees planted since 2013 at the Blackbird Creek Reserve

700 The average number of 4th graders who participate in hands-on learning about land, water, and history during the annual Make-A-Splash Water Festival at the St. Jones Reserve and John Dickinson Plantation.



Volunteers help with tree planting for a reforestation project at the Blackbird Creek Reserve.



**NATIONAL
ESTUARINE
RESEARCH
RESERVE
SYSTEM**

The National Estuarine Research Reserve System is a network of 29 coastal sites designated to protect and study estuarine systems. Established through the federal Coastal Zone Management Act, the reserves represent a partnership program between NOAA and the coastal states. NOAA provides funding and national guidance, and each site is managed on a daily basis by a lead state agency. In Delaware, that is DNREC.

Find us on Social media:

[Facebook.com/dnerr](https://www.facebook.com/dnerr)

[Twitter.com/dnerr](https://twitter.com/dnerr)

[instagram.com/delawarenerr/](https://www.instagram.com/delawarenerr/)

Contact Information:

<http://de.gov/dnerr> or 302-739-6377



Take a stroll on the boardwalk that overlooks the marsh and tributaries of the St. Jones River.

15 The number of graduate research fellows at DNERR since 1997 who worked on important issues such as invasive species, essential fish habitat, marsh development, restoration and sea level rise.

6 The number of awards given to DNERR for their educational videos.

576 Since 2013, the number of volunteers from 21 different states who assisted in the Delaware Bay horseshoe crab spawning survey at Kitts Hummock, Ted Harvey Conservation Area and North Bowers Beach.

Come on out and visit DNERR as we embark on our next 25 years! **OD**



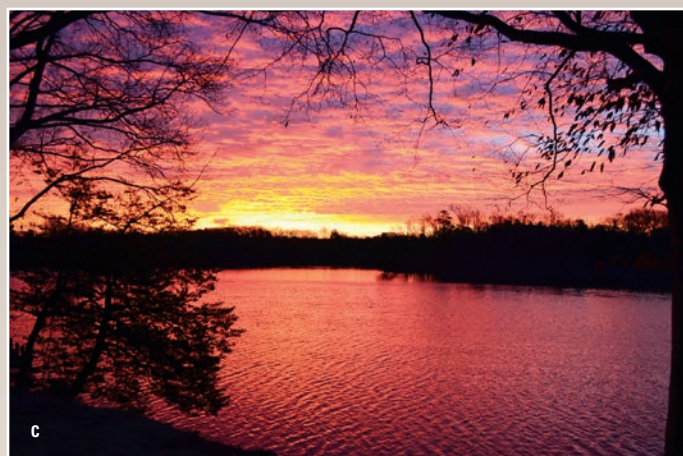
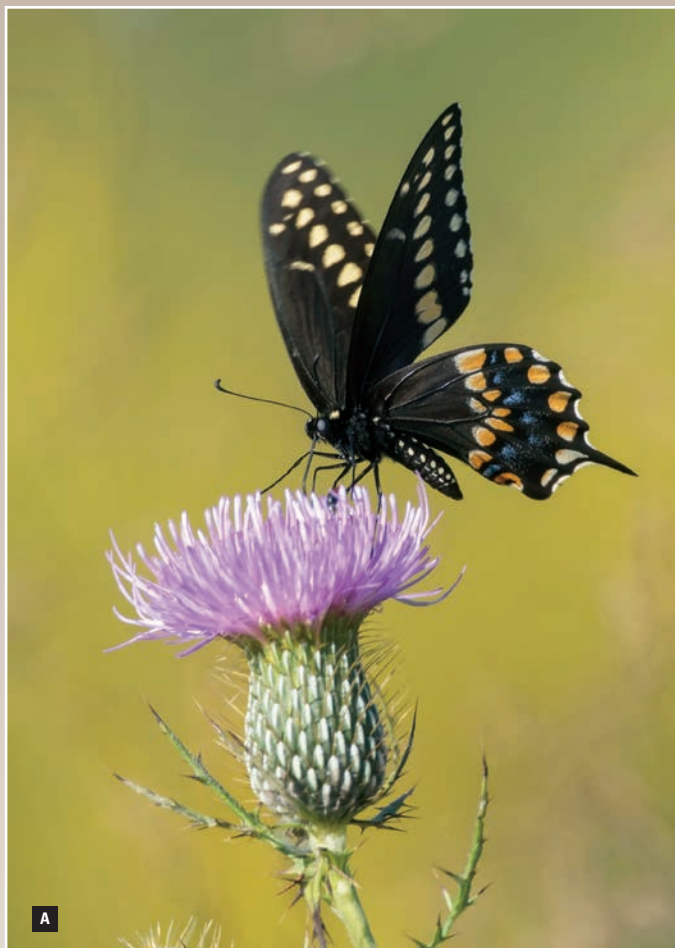
DNERR

DNERR

Researching the benthic bottom of the Delaware Bay.

And the winners are...

Winners of the 2018 Delaware Wetlands Photo Contest



NEW TO THE DELAWARE STATE FAIR this year, DNREC's Delaware Wetlands Photo Contest portrays the beauty of Delaware's diverse environment while acting as a vivid reminder that everything happening on land within the state's watersheds also directly affects what happens in our waterways and to our wildlife.

The contest was open to all photographers, with images from any of Delaware's watersheds accepted as entries. Judges were looking for striking photographic images of Delaware's landscapes, waterscapes, native plants and native wildlife.

Here are the photos that took first-place. To see more of the winners and finalists, visit www.delawarewatersheds.org. **OD**

A Native Plants:

First place: *Earl Blansfield* of Milford, for his photo of thistle weed at Bombay Hook National Wildlife Refuge.

Second and third place: *Michelle Walfred* of Lewes.

B Native Wildlife:

First place: *Earl Blansfield* of Milford, for his photo of a short-eared owl in flight at Fowler Beach, Prime Hook National Wildlife Refuge; also **second place** for his photo of a great egret.

Third place: *Stacey Steinberg* of Port Penn.

C Landscapes and Waterscapes:

First place: *Tammy Kearney* of Seaford, for her photo of a sunset over the Nanticoke River in Seaford.

Second place: *Eric Carter* of Milton.

Third place: *Earl Blansfield*

Discover Delaware's State Wildlife Areas | By Bob Jones

Blackiston Wildlife Area

BLACKISTON WILDLIFE AREA has something for everyone. Named for the unincorporated community near its border, it has been established in northwestern Kent County since the mid-1960s. The 2,303-acre area is located northwest of Kenton, where Routes 42 and 6 intersect.

Blackiston Wildlife Area offers deer, turkey, upland game and waterfowl hunting, with only turkey hunting requiring a special permit available through a lottery conducted in January of each year. Deer hunting is very popular, with hunters providing their own stands enabling them to hunt at locations of their choice. Waterfowl hunting opportunities are also available on the streams, created wetlands and crop fields. Division staff plant sunflower fields to offer dove hunting opportunities in the fall, and scattered food plots to enhance wildlife cover. Agricultural leases require farmers to leave a certain percentage of the crop unharvested to provide food for wildlife.

For fishing enthusiasts, Gleason Pond is a 0.4-acre freshwater catch-and-release pond that is populated with largemouth bass, bluegill, black crappie and chain pickerel. The pond is accessible from a parking lot off Route 6 near the Maryland-Delaware border and requires a moderate walk to access.

For wildlife viewing, the diverse habitats draw a variety of bird species such as bobolinks in grasslands, black-throated blue warblers in woodlands, and uncommon nesting birds such as the black-billed cuckoo in scrub-shrub habitat. Expect an array of amphibians, reptiles, butterflies and dragonflies in the created wetlands, making for excellent nature photography. All internal



BILL JONES, DNREC DIV. OF F&W

dirt lanes are available for hiking and wildlife watching.

Please note: Since parts of this state wildlife area are open to hunting, check DNREC's hunting guide for season dates and locations, and consider wearing hunter orange if you plan to venture into this area during hunting season. For more information, call 302-739-9912 on weekdays.

A Conservation Access Pass is required. More information on the CAP and Blackiston Wildlife Area, including area maps, is available on the Division's website at www.de.gov/fw. **OD**

BILL JONES IS DNREC'S DIVISION OF FISH AND WILDLIFE'S KENT COUNTY REGIONAL MANAGER.



Outdoor Delaware

To contact us by email: elizabeth.shockley@state.de.us

By phone: 302-739-9902

By mail: Outdoor Delaware, 89 Kings Highway, Dover, DE 19901

For address changes by email:

matthew.cardona@state.de.us

To subscribe or renew: Send a check for \$8 to:

Outdoor Delaware, 89 Kings Highway, Dover, DE 19901

Or visit: <https://de.gov/outdoordelaware>

LARRY KNOX

Hunting | Bill Jones



FIRST THE GOOD NEWS: Delaware's deer herd does not have Chronic Wasting Disease (CWD). DNREC's Division of Fish & Wildlife has one of the most intensive sampling programs in the country, and since its inception in 2002, has fortunately not found evidence of the disease in the First State. The bad news is that it has been detected in nearby states including Pennsylvania, Maryland, Virginia and West Virginia.

So what is CWD? It is a contagious neurological disease that affects deer, elk and moose. It causes a spongy degeneration of the brain resulting in emaciation, abnormal behavior, loss of bodily functions and eventually death.

Fortunately, no cases of human infection have been associated with CWD. However, since CWD belongs to a group of diseases known as transmissible spongiform encephalopathies (TSEs), and several rare human diseases are also TSEs, state wildlife agencies around the country are operating under an abundance of caution until more is known.

So why worry if it's not here? Say you're like many Delaware hunters and hunt out-of-state. On the last half hour of your hunt in a county where it's been detected, you shoot the biggest buck of your life. You're expected back home in a couple of hours, so you

just load the deer in the pickup figuring you'll get the local butcher to process it, right? Wrong!

Currently hunters are restricted from bringing entire carcasses and may only bring certain parts back from out-of-state counties where CWD has been detected. Further details regarding regulations can be found on page 18 of the 2018/2019 Delaware Hunting & Trapping Guide.

The main goal is to keep CWD from entering Delaware. Hunters can help by properly disposing of parts left from their own butchering process in sealed bags in household trash that winds up in a landfill. The worst thing that can be done is to throw the waste in the woods or on the side of a road.

Hunters are de-facto wildlife managers every time they harvest an animal, and it's important to be knowledgeable about this threat. More information is available from the Chronic Wasting Disease Alliance website www.cwd-info.org or the Division of Fish & Wildlife website www.de.gov/fw. **DD**

BILL JONES IS THE KENT COUNTY REGIONAL WILDLIFE MANAGER AND PRIVATE LANDS BIOLOGIST – AND AN AVID HUNTER.



JOEY MELVIN

Fishing | Jake Mathews



MANAGING NATURAL RESOURCES is a daunting assignment, especially in the world of fisheries management. How do we keep track of fish populations in an underwater environment we cannot see? Obtaining information about marine fish populations and movements is done through a variety of techniques, one being tagging.

Tagging and recapturing fish helps fisheries scientists and researchers gather information on fish movements, growth and abundance. In order to ensure that enough fish are recaptured to provide useful data, hundreds – if not thousands – of fish of a given species need to be tagged. Getting enough recapture data from marine fish is difficult due to the size of the oceans and the distances some fish migrate.

To help, state agencies – including DNREC – have started to use experienced recreational anglers to tag certain species of interest. DNREC's Division of Fish & Wildlife initiated a project in June and in its inaugural year, seven volunteers have been trained to target and tag black drum, black sea bass, cobia, gray triggerfish, red drum, sheepshead, summer flounder and tautog. The selected volunteers were required to attend a short seminar, during which they learned proper tagging technique, the goals of the project,

species to be tagged, and how to access the online data entry application. Upon being familiarized with the appropriate tagging equipment and demonstrating proper tagging technique, the volunteers were each given a tagging tool along with the project's yellow T-bar tags.

Volunteers have been out tagging since early June, so if you are lucky enough to catch a tagged fish, please note the tag number, length, species, location of the catch and be prepared to either take a photo or write down this URL: <http://de.gov/tag>, which will send you to the data entry application for recaptured species.

Sub-legal fish should be returned to the water as quickly as possible once you have measured the fish and obtained the tag information. Please do not cut the tag off, as that same tag may continue to produce valuable data in ensuing years. Remember to include your email address when entering data for a tagged fish, because anglers who catch a tagged target species will be entered in a drawing at the end of the year, with 20 lucky entrants winning a \$20 Bass Pro gift card. **DD**

JAKE MATHEWS IS AN ENVIRONMENTAL CONTROL TECHNICIAN WITH THE FISHERIES SECTION OF DNREC'S DIVISION OF FISH & WILDLIFE.

Delaware Bayshore Initiative | by Anthony Gonzon

AUTUMN ALWAYS COMES TOO QUICKLY. But even though summer is ending, now is a great time to celebrate the things that make the Bayshore special.

The Delaware Bayshore Initiative works with local communities along the Bayshore to conserve habitat, create and enhance outdoor recreation opportunities and support Bayshore community economies. One way we achieve this is through participation in local events and festivals where we can directly interact with the people who enjoy and depend on this region. This October, the Delaware Bayshore Initiative will participate in several events and we invite all readers to come out and see us.

First, find us at **Coast Day** at the University of Delaware's campus in Lewes on Oct. 7, where we will host an exhibit in the DNREC tent. Each year, we partner with the Delaware Alliance of Bay Communities to promote the natural resources and outdoor experiences to be found from Pickering Beach south to Broadkill Beach. Stop by and learn how each of our Bayshore communities is totally unique yet connected by the common thread of maintaining their places along the bay's shoreline. Find out more at www.decoastday.udel.edu.

The following weekend is all about the oyster with two festivals, both in Kent County. Kick it off by heading to Leipsic for their second annual **Leipsic Oyster Festival** on Saturday, Oct. 13. We will be there – sharing how small communities like Leipsic are an important part of the Delaware Bayshore's ecology

and economy. Come sample some oysters and learn more about this working waterfront community where fishing is a way of life. Learn more at www.lepsicoysterfest.com.

On Sunday, Oct. 14, Bowers Beach will celebrate **Big Thursday** on Sunday. With the recent extension of Delaware Bayshore Byway to the southern Bayshore communities, there is no better time to explore this Byway stop. Participate in the 5K race in the morning then visit the Bowers Maritime Museum to discover the storied history of Bowers Beach. Don't forget the oysters! Get updates at bowersbeach.delaware.gov.

Lastly, get out and explore the Blackbird Creek Reserve at the annual **Blackbird Creek Fall Festival** on Saturday, Oct. 20. There is so much to do and explore such as hiking, kayaking and hayrides. Add in information booths and educational displays, along with local artisans and vendors to make this a "can't miss" opportunity. Visit the Delaware Bayshore Initiative exhibit to watch great videos about the Bayshore, its resources, people, culture and history and discover Delaware's wild side. More information can be found at <https://dnrec.alpha.delaware.gov/coastal-programs/education-outreach/blackbird-creek-fall-festival/>.

If you come out (and we hope you do), don't forget to stop by and say hello. **OD**

ANTHONY GONZON IS THE COORDINATOR OF THE DELAWARE BAYSHORE INITIATIVE IN THE DIVISION OF FISH AND WILDLIFE.

Your State Parks | Auburn Heights Preserve | by Laura Lee



THE TRANSFORMATION of Yorklyn's former NVF industrial site and the improved water quality of the Red Clay Creek are only part of the buzz at the nearby Auburn Heights Preserve. This 360-acre preserve offers visitors the chance to see what life was like at the dawn of the automotive age. It features a furnished 1897 mansion, along with the Marshall Steam Museum containing the largest collection of operating steam cars in the world. The mansion, with its antique furnishings, and the museum, with its steam cars and much more, are open to the public on select dates.

Just as exciting is the growing renaissance of the town of Yorklyn, where the preserve is located. The former NVF factory now boasts a new wetland teeming with amphibian life. It's become a popular stop for shorebirds, and there have been sightings of spotted sandpipers. Only a couple of nesting occurrences of the bird are documented per year in Delaware, so their presence at a former factory site is an amazing environmental victory.

Years of DNREC work cleaning groundwater and soil prior to construction activity has fueled the transformation. For the first time in 30 years, the Red Clay Creek water quality is so improved that DNREC has stocked the waterway with trout, much to the delight of visitors.

The preserve itself continues to grow in programming and



APRIL ABEL

event rental interest, with an uptick in attention in environmental programs. Most recent trail progress includes installation of a repurposed historic bridge trail connector. The 1883 McIntyre Bowstring Bridge traveled from Iowa to its new Yorklyn home in the spring, providing a trail link well-suited to Yorklyn's history over a gorgeous section of the creek. Park visitors are also enamored with the Oversee Farm trail.

Clearly, the Auburn Heights Preserve is on the move, and visitors should put it on their must-see list for the fall. **OD**

LAURA LEE IS SUPERINTENDENT OF THE AUBURN HEIGHTS PRESERVE.



Male indigo bunting.

©2018 by Doug Norton.

"The blue color of the male bunting is not from pigmentation, it's a trick of light by the feather structure that diffracts light to show the blue wavelength."

Outdoor *Delaware*

FALL 2018



By buying products with the FSC label you are supporting the growth of responsible forest management worldwide.



Outdoor Delaware uses petroleum-free ink.